



09/466 778

CORC

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Letters Patent of:  
Hastings et al.

Docket No.: PF487

Patent No.: 6,872,546 **B1**

Issued: March 29, 2005

For: Hyaluronan-binding Protein and Encoding Genes

**REQUEST FOR CERTIFICATE OF CORRECTION  
PURSUANT TO 37 CFR 1.322**

Attention: Certificate of Correction Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Certificate**  
**AUG 02 2005**  
**of Correction**

Sir:

Upon reviewing the above-identified patent, Patentee noted typographical errors which should be corrected.

At the Title Page:

Under the heading Other Publications, please correct the following reference as indicated:

--Lee et al., "A novel secretory Tumor Necrosis Factor-inducible Protein (TSG-6) is a ~~member~~ member of the family of Hyaluronate Binding Proteins, closely related to the Adhesion Receptor CD44" Jan. 1992, vol. 116, No. 2, pp. 545-557.\* --.

In the Claims:

In Claim 33, page 317, lines 11-19, please delete the second subsets (a)-(g).

In Claim 46, page 318, line 9, after the phrase "claim 33," please insert --wherein said--.

Sequence Listing:

Patentees respectfully note that the entire Sequence Listing has been omitted from the issued patent. The Sequence Listing last filed by Patentees was a 37-page document filed on December 18, 2003. Accordingly, Patentees respectfully request that the last filed Sequence Listing be included in the Certificate of Correction issued by the Office, as suggested in the proposed Certificate of Correction submitted concurrently herewith. Should the Office wish to

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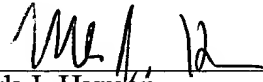
insert the Sequence Listing in some other manner, please contact the undersigned for any assistance deemed necessary.

The errors were not in the application as filed by applicant; accordingly no fee is required.

Transmitted herewith is a proposed Certificate of Correction effecting such amendments. Patentee respectfully solicits the granting of the requested Certificate of Correction.

Dated: 7/29/2005

Respectfully submitted,

By   
Mark J. Hyman

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CERTIFICATE OF CORRECTION**

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PATENT NO. : 6,872,546 *B1*  
APPLICATION NO. : 09/466,778  
ISSUE DATE : March 29, 2005  
INVENTOR(S) : Hastings et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

At the Title Page:

Under the heading Other Publications, please correct the fourth reference as follows:

--Lee et al., "A novel secretory Tumor Necrosis Factor-inducible Protein (TSG-6) is a ~~member~~ member of the family of Hyaluronate Binding Proteins, closely related to the Adhesion Receptor CD44" Jan. 1992, vol. 116, No. 2, pp. 545-557.\* --.

In the Claims:

In Claim 33, at page 317, lines 11-19, please delete the second subsets (a)-(g).

In Claim 46, at page 318, line 9, after the phrase "claim 33," please insert --wherein said--.

Sequence Listing:

At page 315, immediately before the claims, please insert the following Sequence Listing:

SEQUENCE LISTING

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. 6,872,546 *B1*

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Page 9 of 60

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gcg ctg cac tgg gag cct gat gat gct ccc atc ccg agg aga aat gtc 4114  
Ala Leu His Trp Glu Pro Asp Asp Ala Pro Ile Pro Arg Arg Asn Val  
1300 1305 1310 1315

acc gcc gcc gcc cag ggc ttc ggt tac aag atc ttc agc ggc ctc ctg 4162  
Thr Ala Ala Ala Gln Gly Phe Gly Tyr Lys Ile Phe Ser Gly Leu Leu  
1320 1325 1330

aag gtg gcc ggc ctc ctg ccc ctg ctt cga gag gca tcc cat agg ccc 4210  
Lys Val Ala Gly Leu Leu Pro Leu Leu Arg Glu Ala Ser His Arg Pro  
1335 1340 1345

ttc aca atg ctg tgg ccc aca gac gcc gcc ttt cga gct ctg cct ccg 4258  
Phe Thr Met Leu Trp Pro Thr Asp Ala Ala Phe Arg Ala Leu Pro Pro  
1350 1355 1360

gat cgc cag gcc tgg ctg tac cat gag gac cac cgt gac aag cta gca 4306  
Asp Arg Gln Ala Trp Leu Tyr His Glu Asp His Arg Asp Lys Leu Ala  
1365 1370 1375

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gcc att ctg cgg ggc cac atg att cgc aat gtc gag gcc ttg gca tct 4354  
Ala Ile Leu Arg Gly His Met Ile Arg Asn Val Glu Ala Leu Ala Ser  
1380 1385 1390 1395

gac ctg ccc aac ctg ggc cca ctt cga acc atg cat ggg acc ccc atc 4402  
Asp Leu Pro Asn Leu Gly Pro Leu Arg Thr Met His Gly Thr Pro Ile  
1400 1405 1410

tct ttc tcc tgc agc cga acg cgg ccc ggt gag ctc atg gtg ggt gag 4450  
Ser Phe Ser Cys Ser Arg Thr Arg Pro Gly Glu Leu Met Val Gly Glu  
1415 1420 1425

gat gat gct cgc att gtg cag cgg cac ttg ccc ttt gag ggt ggc ctg 4498  
Asp Asp Ala Arg Ile Val Gln Arg His Leu Pro Phe Glu Gly Gly Leu  
1430 1435 1440

gcc tat ggc atc gac cag ctg ctg gag cca cct ggc ctt ggt gct cgc 4546  
Ala Tyr Gly Ile Asp Gln Leu Leu Glu Pro Pro Gly Leu Gly Ala Arg  
1445 1450 1455

tgt gac cac ttt gag acc cgg ccc ctg cga ctg aac acc tgc agc atc 4594  
Cys Asp His Phe Glu Thr Arg Pro Leu Arg Leu Asn Thr Cys Ser Ile  
1460 1465 1470 1475

tgt	ggg	ctg	gag	cca	ccc	tgt	cct	gag	ggg	tca	cag	gag	cag	ggc	agc	4642
Cys	Gly	Leu	Glu	Pro	Pro	Cys	Pro	Glu	Gly	Ser	Gln	Glu	Gln	Gly	Ser	
				1480					1485					1490		

cct gag gcc tgc tgg cgc ttc tac ccg aag ttc tgg acg tcc cct ccg 4690  
Pro Glu Ala Cys Trp Arg Phe Tyr Pro Lys Phe Trp Thr Ser Pro Pro  
1495 1500 1505

ctg cac tct ttg gga tta cgc agc gtc tgg gtc cac ccc agc ctt tgg 4738  
Leu His Ser Leu Gly Leu Arg Ser Val Trp Val His Pro Ser Leu Trp  
1510 1515 1520

ggt agg ccc caa ggc ctg ggc agg ggc tgc cac cgc aat tgt gtc acc 4786  
Gly Arg Pro Gln Gly Leu Gly Arg Gly Cys His Arg Asn Cys Val Thr  
1525 1530 1535

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<p>acc acc tgg aag ccc agc tgc tgc cct ggt cac tat ggc agt gag tgc            Thr Thr Trp Lys Pro Ser Cys Cys Pro Gly His Tyr Gly Ser Glu Cys            1540 1545 1550 1555</p>	4834
<p>caa gct tgc cct ggc ggc ccc agc agc cct tgt agt gac cgt ggc gtg            Gln Ala Cys Pro Gly Gly Pro Ser Ser Pro Cys Ser Asp Arg Gly Val            1560 1565 1570</p>	4882
<p>tgc atg gac ggc atg agt ggc agt ggg cag tgt ctg tgc cgt tca ggt            Cys Met Asp Gly Met Ser Gly Ser Gly Gln Cys Leu Cys Arg Ser Gly            1575 1580 1585</p>	4930
<p>ttt gct ggg aca gcc tgt gaa ctc tgt gct cct ggt gcc ttt ggg ccc            Phe Ala Gly Thr Ala Cys Glu Leu Cys Ala Pro Gly Ala Phe Gly Pro            1590 1595 1600</p>	4978
<p>cat tgt caa gcc tgc cgc tgc act gtg cat ggc cgc tgt gat gag ggc            His Cys Gln Ala Cys Arg Cys Thr Val His Gly Arg Cys Asp Glu Gly            1605 1610 1615</p>	5026
<p>ctt ggg ggc tct ggc tcc tgc ttc tgt gat gaa ggc tgg act ggg cca            Leu Gly Gly Ser Gly Ser Cys Phe Cys Asp Glu Gly Trp Thr Gly Pro            1620 1625 1630 1635</p>	5074
<p>cgc tgt gag gtg caa ctg gag ctg cag cct gtg tgt acc cca ccc tgt            Arg Cys Glu Val Gln Leu Glu Leu Gln Pro Val Cys Thr Pro Pro Cys            1640 1645 1650</p>	5122
<p>gca ccc gag gct gtg tgc cgt gca ggc aac agc tgt gag tgc agc ctg            Ala Pro Glu Ala Val Cys Arg Ala Gly Asn Ser Cys Glu Cys Ser Leu            1655 1660 1665</p>	5170
<p>ggc tat gaa ggg gat ggc cgt gtg tgt aca gtg gca gac ctg tgc cag            Gly Tyr Glu Gly Asp Gly Arg Val Cys Thr Val Ala Asp Leu Cys Gln            1670 1675 1680</p>	5218
<p>gac ggg cat ggt ggc tgc agt gag cac gcc aac tgt agc cag gta gga            Asp Gly His Gly Gly Cys Ser Glu His Ala Asn Cys Ser Gln Val Gly            1685 1690 1695</p>	5266

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aca atg gtc act tgt acc tgc ctg ccc gac tac gag ggt gat ggc tgg 5314  
Thr Met Val Thr Cys Thr Cys Leu Pro Asp Tyr Glu Gly Asp Gly Trp  
1700 1705 1710 1715

agc tgc cgg gcc cgc aac ccc tgc aca gat ggc cac cgc ggg ggc tgc 5362  
 Ser Cys Arg Ala Arg Asn Pro Cys Thr Asp Gly His Arg Gly Gly Cys  
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agc gag cac gcc aac tgc ttg agc acc ggc ctg aac aca cgg cgc tgt 5410  
 Ser Glu His Ala Asn Cys Leu Ser Thr Gly Leu Asn Thr Arg Arg Cys  
 1735 1740 1745

gag tgc cac gca ggc tac gta ggc gat gga ctg cag tgt ctg gag gag 5458  
Glu Cys His Ala Gly Tyr Val Gly Asp Gly Leu Gln Cys Leu Glu Glu  
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tgc gaa cca cct gtg gac cgc tgc ttg ggc cag cca ccg ccc tgc cac 5506  
Ser Glu Pro Pro Val Asp Arg Cys Leu Gly Gln Pro Pro Pro Cys His  
1765 1770 1775

tca gat gcc atg tgc act gac ctg cac ttc cag gag aaa cgg gct ggc 5554  
Ser Asp Ala Met Cys Thr Asp Leu His Phe Gln Glu Lys Arg Ala Gly  
1780 1785 1790 1795

ggt ttc cac ctc cag gcc acc agc ggc cct tat ggt ctg aac ttt tcg 5602  
Val Phe His Leu Gln Ala Thr Ser Gly Pro Tyr Gly Leu Asn Phe Ser  
1800 1805 1810

gag gct gag gcg gca tgc gaa gca cag gga gcc gtc ctt gct tca ttc 5650  
Glu Ala Glu Ala Ala Cys Glu Ala Gln Gly Ala Val Leu Ala Ser Phe  
1815 1820 1825

cct cag ctc tct gct gcc cag cag ctg ggc ttc cac ctg tgc ctc atg 5698  
Pro Gln Leu Ser Ala Ala Gln Gln Leu Gly Phe His Leu Cys Leu Met  
1830 1835 1840

ggc tgg ctg gcc aat ggc tcc act gcc cac cct gtg gtt ttc cct gtg 5746  
Gly Trp Leu Ala Asn Gly Ser Thr Ala His Pro Val Val Phe Pro Val  
1845 1850 1855

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<p>gcg gac tgt ggc aat ggt cgg gtg ggc ata gtc agc ctg ggt gcc cgc Ala Asp Cys Gly Asn Gly Arg Val Gly Ile Val Ser Leu Gly Ala Arg 1860 1865 1870 1875</p>	5794
<p>aag aac ctc tca gaa cgc tgg gat gcc tac tgc ttc cgt gtg caa gat Lys Asn Leu Ser Glu Arg Trp Asp Ala Tyr Cys Phe Arg Val Gln Asp 1880 1885 1890</p>	5842
<p>gtg gcc tgc cga tgc cga aat ggc ttc gtg ggt gac ggg atc agc acg Val Ala Cys Arg Cys Arg Asn Gly Phe Val Gly Asp Gly Ile Ser Thr 1895 1900 1905</p>	5890
<p>tgc aat ggg aag ctg ctg gat gtg ctg gct gcc act gcc aac ttc tcc Cys Asn Gly Lys Leu Leu Asp Val Leu Ala Ala Thr Ala Asn Phe Ser 1910 1915 1920</p>	5938
<p>acc ttc tat ggg atg cta ttg ggc tat gcc aat gcc acc cag cgg ggt Thr Phe Tyr Gly Met Leu Leu Gly Tyr Ala Asn Ala Thr Gln Arg Gly 1925 1930 1935</p>	5986
<p>ctc gac ttc ctg gac ttc ctg gat gat gag ctc acg tat aag aca ctc Leu Asp Phe Leu Asp Phe Leu Asp Asp Glu Leu Thr Tyr Lys Thr Leu 1940 1945 1950 1955</p>	6034
<p>ttc gtc cct gtc aat gaa ggc ttt gtg gac aac atg acg ctg agt ggc Phe Val Pro Val Asn Glu Gly Phe Val Asp Asn Met Thr Leu Ser Gly 1960 1965 1970</p>	6082
<p>cca aac ttg gag ctg cat gcc tcc aac gcc acc ctc cta agt gcc aac Pro Asn Leu Glu Leu His Ala Ser Asn Ala Thr Leu Leu Ser Ala Asn 1975 1980 1985</p>	6130
<p>gcc agc cag ggg aag ttg ctt ccg gcc cac tca ggc ctc agc ctc atc Ala Ser Gln Gly Lys Leu Leu Pro Ala His Ser Gly Leu Ser Leu Ile 1990 1995 2000</p>	6178
<p>atc agt gac gca ggc cct gac aac agt tcc tgg gcc cct gtg gcc cca Ile Ser Asp Ala Gly Pro Asp Asn Ser Ser Trp Ala Pro Val Ala Pro 2005 2010 2015</p>	6226

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ggg aca gtt gtg gtt agc cgt atc att gtg tgg gac atc atg gcc ttc 6274  
Gly Thr Val Val Val Ser Arg Ile Ile Val Trp Asp Ile Met Ala Phe  
2020 2025 2030 2035

aat ggc atc atc cat gct ctg gcc agc ccc ctc ctg gca ccc cca cag 6322  
Asn Gly Ile Ile His Ala Leu Ala Ser Pro Leu Leu Ala Pro Pro Gln  
2040 2045 2050

ccc cag gca gtg ctg gcg cnt gaa gcc cca cct gtg gcg gca ggc gtg 6370  
Pro Gln Ala Val Leu Ala Xaa Glu Ala Pro Pro Val Ala Ala Gly Val  
2055 2060 2065

ggg gct gtg ctt gcc gct gga gca ctg ctt ggc ttg gtg gcc gga gct 6418  
Gly Ala Val Leu Ala Ala Gly Ala Leu Leu Gly Leu Val Ala Gly Ala  
2070 2075 2080

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ctc tac ctc cgt gcc cga ggc aag ccc atg ggc ttt ggc ttc tct gcc      6466
Leu Tyr Leu Arg Ala Arg Gly Lys Pro Met Gly Phe Gly Phe Ser Ala
      2085              2090              2095

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ttc cag gcg gaa gat gat gct gat gac gan ttc tca ccg tgg caa gaa 6514  
Phe Gln Ala Glu Asp Asp Ala Asp Asp Xaa Phe Ser Pro Trp Gln Glu  
2100 2105 2110 2115

ggg acc aac ccc acn ttg gtn tnt gtc ccc aac cct gtc ttt ggc agc 6562  
Gly Thr Asn Pro Xaa Leu Xaa Xaa Val Pro Asn Pro Val Phe Gly Ser  
2120 2125 2130

gac acc ttt tgt gaa ccc ttc gat gac tca ctg ctg gag gag gac ttc 6610  
Asp Thr Phe Cys Glu Pro Phe Asp Asp Ser Leu Leu Glu Glu Asp Phe  
2135 2140 2145

cct gac acc cag agg atc ctc aca gtc aag tga cgaggctggg gctgaaagca 6663  
Pro Asp Thr Gln Arg Ile Leu Thr Val Lys  
2150 2155

gaagcatgca cagggaggag accantttta ttgcttgtct ggggtggatgg ggcaggaggg 6723

nctgagggcc tgtcccagac aatannngtn ccctcgag 6761

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<213> Homo sapiens

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20 25 30  
Ala Ser Leu Ala Gln Gln Leu Cys Arg Gln His Ile Ile Ala Gly Gln  
35 40 45  
His Ile Leu Glu Asp Thr Arg Thr Gln Gln Thr Arg Arg Trp Trp Thr  
50 55 60

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Leu	Ala	Gly	Gln	Glu	Ile	Thr	Val	Thr	Phe	Asn	Gln	Phe	Thr	Lys	Tyr	
65					70					75					80	
Ser	Tyr	Lys	Tyr	Lys	Asp	Gln	Pro	Gln	Gln	Thr	Phe	Asn	Ile	Tyr	Lys	
				85					90					95		
Ala	Asn	Asn	Ile	Ala	Ala	Asn	Gly	Val	Phe	His	Val	Val	Thr	Gly	Leu	
			100					105					110			
Arg	Trp	Gln	Ala	Pro	Ser	Gly	Thr	Pro	Gly	Asp	Pro	Lys	Arg	Thr	Ile	
		115					120					125				
Gly	Gln	Ile	Leu	Ala	Ser	Thr	Glu	Ala	Phe	Ser	Arg	Phe	Glu	Thr	Ile	
	130					135					140					
Leu	Glu	Asn	Cys	Gly	Leu	Pro	Ser	Ile	Leu	Asp	Gly	Pro	Gly	Pro	Phe	
145					150					155					160	
Thr	Val	Phe	Ala	Pro	Ser	Asn	Glu	Ala	Val	Asp	Ser	Leu	Arg	Asp	Gly	
				165					170					175		
Arg	Leu	Ile	Tyr	Leu	Phe	Thr	Ala	Gly	Leu	Ser	Lys	Leu	Gln	Glu	Leu	
			180					185					190			
Val	Arg	Tyr	His	Ile	Tyr	Asn	His	Gly	Gln	Leu	Thr	Val	Glu	Lys	Leu	
		195				200						205				
Ile	Ser	Lys	Gly	Arg	Ile	Leu	Thr	Met	Ala	Asn	Gln	Val	Leu	Ala	Val	
	210					215					220					
Asn	Ile	Ser	Glu	Glu	Gly	Arg	Ile	Leu	Leu	Gly	Pro	Glu	Gly	Val	Pro	
225					230					235					240	
Leu	Gln	Arg	Val	Asp	Val	Met	Ala	Ala	Asn	Gly	Val	Ile	His	Met	Leu	
				245					250					255		
Asp	Gly	Ile	Leu	Leu	Pro	Pro	Thr	Ile	Leu	Pro	Ile	Leu	Pro	Lys	His	
			260					265					270			
Cys	Ser	Glu	Glu	Gln	His	Lys	Ile	Val	Ala	Gly	Ser	Cys	Val	Asp	Cys	
		275					280					285				

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Gln	Ala	Leu	Asn	Thr	Ser	Thr	Cys	Pro	Pro	Asn	Ser	Val	Lys	Leu	Asp
	290						295					300			
Ile	Phe	Pro	Lys	Glu	Cys	Val	Tyr	Ile	His	Asp	Pro	Thr	Gly	Leu	Asn
305					310					315					320
Val	Leu	Lys	Lys	Gly	Cys	Ala	Ser	Tyr	Cys	Asn	Gln	Thr	Ile	Met	Glu
				325					330					335	
Gln	Gly	Cys	Cys	Lys	Gly	Phe	Phe	Gly	Pro	Asp	Cys	Thr	Gln	Cys	Pro
			340					345					350		
Gly	Gly	Phe	Ser	Asn	Pro	Cys	Tyr	Gly	Lys	Gly	Asn	Cys	Ser	Asp	Gly
		355					360					365			
Ile	Gln	Gly	Asn	Gly	Ala	Cys	Leu	Cys	Phe	Pro	Asp	Tyr	Lys	Gly	Ile
	370					375					380				
Ala	Cys	His	Ile	Cys	Ser	Asn	Pro	Asn	Lys	His	Gly	Glu	Gln	Cys	Gln
385					390					395					400
Glu	Asp	Cys	Gly	Cys	Val	His	Gly	Leu	Cys	Asp	Asn	Arg	Pro	Gly	Ser
				405					410					415	
Gly	Gly	Val	Cys	Gln	Gln	Gly	Thr	Cys	Ala	Pro	Gly	Phe	Ser	Gly	Arg
			420					425					430		
Phe	Cys	Asn	Glu	Ser	Met	Gly	Asp	Cys	Gly	Pro	Thr	Gly	Leu	Ala	Gln
		435					440					445			
His	Cys	His	Leu	His	Ala	Arg	Cys	Val	Ser	Gln	Glu	Gly	Val	Ala	Arg
	450					455					460				
Cys	Arg	Cys	Leu	Asp	Gly	Phe	Glu	Gly	Asp	Gly	Phe	Ser	Cys	Thr	Pro
465					470					475					480
Ser	Asn	Pro	Cys	Ser	His	Pro	Asp	Arg	Gly	Gly	Cys	Ser	Glu	Asn	Ala
				485					490					495	
Glu	Cys	Val	Pro	Gly	Ser	Leu	Gly	Thr	His	His	Cys	Thr	Cys	His	Lys
			500					505					510		

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Gly Trp Ser Gly Asp Gly Arg Val Cys Val Ala Ile Asp Glu Cys Glu	515	520	525
Leu Asp Val Arg Gly Gly Cys His Thr Asp Ala Leu Cys Ser Tyr Val	530	535	540
Gly Pro Gly Gln Ser Arg Cys Thr Cys Lys Leu Gly Phe Ala Gly Asp	545	550	555
Gly Tyr Gln Cys Ser Pro Ile Asp Pro Cys Arg Ala Gly Asn Gly Gly	565	570	575
Cys His Gly Leu Glu Leu Glu Ala Asn Ala His Phe Ser Ile Phe Tyr	580	585	590
Gln Trp Leu Lys Ser Ala Gly Ile Thr Leu Pro Ala Asp Arg Arg Val	595	600	605
Thr Ala Leu Val Pro Ser Glu Ala Ala Val Arg Gln Leu Ser Pro Glu	610	615	620
Asp Arg Ala Phe Trp Leu Gln Pro Arg Thr Leu Pro Asn Leu Val Arg	625	630	635
Ala His Phe Leu Gln Gly Ala Leu Phe Glu Glu Glu Leu Ala Arg Leu	645	650	655
Gly Gly Gln Glu Val Ala Thr Leu Asn Pro Thr Thr Arg Trp Glu Ile	660	665	670
Arg Asn Ile Ser Gly Arg Val Trp Val Gln Asn Ala Ser Val Asp Val	675	680	685
Ala Asp Leu Leu Ala Thr Asn Gly Val Leu His Ile Leu Ser Gln Val	690	695	700
Leu Leu Pro Pro Arg Gly Asp Val Pro Gly Gly Gln Gly Leu Leu Gln	705	710	715
Gln Leu Asp Leu Val Pro Ala Phe Ser Leu Phe Arg Glu Leu Leu Gln	725	730	735

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His	His	Gly	Leu	Val	Pro	Gln	Ile	Glu	Ala	Ala	Thr	Ala	Tyr	Thr	Ile
			740					745					750		
Phe	Val	Pro	Thr	Asn	Arg	Ser	Leu	Glu	Ala	Gln	Gly	Asn	Ser	Ser	His
							760					765			
Leu	Asp	Ala	Asp	Thr	Val	Arg	His	His	Val	Val	Leu	Gly	Glu	Ala	Leu
770						775					780				
Ser	Met	Glu	Thr	Leu	Arg	Lys	Gly	Gly	His	Arg	Asn	Ser	Leu	Leu	Gly
785					790					795					800
Pro	Ala	His	Trp	Ile	Val	Phe	Tyr	Asn	His	Ser	Gly	Gln	Pro	Glu	Val
				805					810					815	
Asn	His	Val	Pro	Leu	Glu	Gly	Pro	Met	Leu	Glu	Ala	Pro	Gly	Arg	Ser
			820					825					830		
Leu	Ile	Gly	Leu	Ser	Gly	Val	Leu	Thr	Val	Gly	Ser	Ser	Arg	Cys	Leu
	835						840					845			
His	Ser	His	Ala	Glu	Ala	Leu	Arg	Glu	Lys	Cys	Val	Asn	Cys	Thr	Arg
850						855					860				
Arg	Phe	Arg	Cys	Thr	Gln	Gly	Phe	Gln	Leu	Gln	Asp	Thr	Pro	Arg	Lys
865					870					875					880
Ser	Cys	Val	Tyr	Arg	Ser	Gly	Phe	Ser	Phe	Ser	Arg	Gly	Cys	Ser	Tyr
				885					890					895	
Thr	Cys	Ala	Lys	Lys	Ile	Gln	Val	Pro	Asp	Cys	Cys	Pro	Gly	Phe	Phe
		900						905					910		
Gly	Thr	Leu	Cys	Glu	Pro	Cys	Pro	Gly	Gly	Leu	Gly	Gly	Val	Cys	Ser
		915					920					925			
Gly	His	Gly	Gln	Cys	Gln	Asp	Arg	Phe	Leu	Gly	Ser	Gly	Glu	Cys	His
	930					935					940				
Cys	His	Glu	Gly	Phe	His	Gly	Thr	Ala	Cys	Glu	Val	Cys	Glu	Leu	Gly
945					950					955					960

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Arg Tyr Gly Pro	Asn Cys Thr Gly Val	Cys Asp Cys Ala His Gly Leu	
	965	970	975
Cys Gln Glu Gly	Leu Gln Gly Asp	Gly Ser Cys Val	Cys Asn Val Gly
980	985	990	
Trp Gln Gly Leu	Arg Cys Asp Gln	Lys Ile Thr Ser	Pro Gln Cys Pro
995	1000	1005	
Arg Lys Cys Asp	Pro Asn Ala Asn	Cys Val Gln Asp	Ser Ala Gly Ala
1010	1015	1020	
Ser Thr Cys Ala	Cys Ala Ala Gly	Tyr Ser Gly Asn	Gly Ile Phe Cys
1025	1030	1035	1040
Ser Glu Val Asp	Pro Cys Ala His	Gly His Gly Gly	Cys Ser Pro His
1045	1050	1055	
Ala Asn Cys Thr	Lys Val Ala Pro	Gly Gln Arg Thr	Cys Thr Cys Gln
1060	1065	1070	
Asp Gly Tyr Met	Gly Asp Gly Glu	Leu Cys Gln Glu	Ile Asn Ser Cys
1075	1080	1085	
Leu Ile His His	Gly Gly Cys His	Ile His Ala Glu	Cys Ile Pro Thr
1090	1095	1100	
Gly Pro Gln Gln	Val Ser Cys Ser	Cys Arg Glu Gly	Tyr Ser Gly Asp
1105	1110	1115	1120
Gly Ile Arg Thr	Cys Glu Leu Leu	Asp Pro Cys Ser	Lys Asn Asn Gly
1125	1130	1135	
Gly Cys Ser Pro	Tyr Ala Thr Cys	Lys Ser Thr Gly	Asp Gly Gln Arg
1140	1145	1150	
Thr Cys Thr Cys	Asp Thr Ala His	Thr Val Gly Asp	Gly Leu Thr Cys
1155	1160	1165	
Arg Ala Arg Val	Gly Leu Glu Leu	Leu Arg Asp Lys	His Ala Ser Phe
1170	1175	1180	

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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Phe	Ser	Leu	Arg	Leu	Leu	Glu	Tyr	Lys	Glu	Leu	Lys	Gly	Asp	Gly	Pro
1185					1190					1195					1200
Phe	Thr	Ile	Phe	Val	Pro	His	Ala	Asp	Leu	Met	Ser	Asn	Leu	Ser	Gln
				1205					1210					1215	
Asp	Glu	Leu	Ala	Arg	Ile	Arg	Ala	His	Arg	Gln	Leu	Val	Phe	Arg	Tyr
			1220					1225						1230	
His	Val	Val	Gly	Cys	Arg	Arg	Leu	Arg	Ser	Glu	Asp	Leu	Leu	Glu	Gln
			1235					1240					1245		
Gly	Tyr	Ala	Thr	Ala	Leu	Ser	Gly	His	Pro	Leu	Arg	Phe	Ser	Glu	Arg
	1250						1255				1260				
Glu	Gly	Ser	Ile	Tyr	Leu	Asn	Asp	Phe	Ala	Arg	Val	Val	Ser	Ser	Asp
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His	Glu	Ala	Val	Asn	Gly	Ile	Leu	His	Phe	Ile	Asp	Arg	Val	Leu	Leu
				1285					1290					1295	
Pro	Pro	Glu	Ala	Leu	His	Trp	Glu	Pro	Asp	Asp	Ala	Pro	Ile	Pro	Arg
			1300					1305					1310		
Arg	Asn	Val	Thr	Ala	Ala	Ala	Gln	Gly	Phe	Gly	Tyr	Lys	Ile	Phe	Ser
		1315					1320						1325		
Gly	Leu	Leu	Lys	Val	Ala	Gly	Leu	Leu	Pro	Leu	Leu	Arg	Glu	Ala	Ser
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His	Arg	Pro	Phe	Thr	Met	Leu	Trp	Pro	Thr	Asp	Ala	Ala	Phe	Arg	Ala
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Leu	Pro	Pro	Asp	Arg	Gln	Ala	Trp	Leu	Tyr	His	Glu	Asp	His	Arg	Asp
				1365					1370					1375	
Lys	Leu	Ala	Ala	Ile	Leu	Arg	Gly	His	Met	Ile	Arg	Asn	Val	Glu	Ala
			1380					1385					1390		
Leu	Ala	Ser	Asp	Leu	Pro	Asn	Leu	Gly	Pro	Leu	Arg	Thr	Met	His	Gly
		1395					1400					1405			

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Thr	Pro	Ile	Ser	Phe	Ser	Cys	Ser	Arg	Thr	Arg	Pro	Gly	Glu	Leu	Met
	1410					1415					1420				
Val	Gly	Glu	Asp	Asp	Ala	Arg	Ile	Val	Gln	Arg	His	Leu	Pro	Phe	Glu
1425					1430					1435					1440
Gly	Gly	Leu	Ala	Tyr	Gly	Ile	Asp	Gln	Leu	Leu	Glu	Pro	Pro	Gly	Leu
				1445					1450					1455	
Gly	Ala	Arg	Cys	Asp	His	Phe	Glu	Thr	Arg	Pro	Leu	Arg	Leu	Asn	Thr
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Cys	Ser	Ile	Cys	Gly	Leu	Glu	Pro	Pro	Cys	Pro	Glu	Gly	Ser	Gln	Glu
		1475					1480					1485			
Gln	Gly	Ser	Pro	Glu	Ala	Cys	Trp	Arg	Phe	Tyr	Pro	Lys	Phe	Trp	Thr
	1490					1495					1500				
Ser	Pro	Pro	Leu	His	Ser	Leu	Gly	Leu	Arg	Ser	Val	Trp	Val	His	Pro
1505					1510					1515					1520
Ser	Leu	Trp	Gly	Arg	Pro	Gln	Gly	Leu	Gly	Arg	Gly	Cys	His	Arg	Asn
				1525					1530					1535	
Cys	Val	Thr	Thr	Thr	Trp	Lys	Pro	Ser	Cys	Cys	Pro	Gly	His	Tyr	Gly
				1540				1545					1550		
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1585					1590					1595					1600
Phe	Gly	Pro	His	Cys	Gln	Ala	Cys	Arg	Cys	Thr	Val	His	Gly	Arg	Cys
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Asp	Glu	Gly	Leu	Gly	Gly	Ser	Gly	Ser	Cys	Phe	Cys	Asp	Glu	Gly	Trp
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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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Thr Gly Pro	Arg Cys Glu Val Gln	Leu Glu Leu Gln Pro	Val Cys Thr
1635	1640	1645	
Pro Pro Cys Ala Pro Glu Ala Val Cys Arg Ala Gly Asn Ser Cys Glu			
1650	1655	1660	
Cys Ser Leu Gly Tyr Glu Gly Asp Gly Arg Val Cys Thr Val Ala Asp			
1665	1670	1675	1680
Leu Cys Gln Asp Gly His Gly Gly Cys Ser Glu His Ala Asn Cys Ser			
1685	1690	1695	
Gln Val Gly Thr Met Val Thr Cys Thr Cys Leu Pro Asp Tyr Glu Gly			
1700	1705	1710	
Asp Gly Trp Ser Cys Arg Ala Arg Asn Pro Cys Thr Asp Gly His Arg			
1715	1720	1725	
Gly Gly Cys Ser Glu His Ala Asn Cys Leu Ser Thr Gly Leu Asn Thr			
1730	1735	1740	
Arg Arg Cys Glu Cys His Ala Gly Tyr Val Gly Asp Gly Leu Gln Cys			
1745	1750	1755	1760
Leu Glu Glu Ser Glu Pro Pro Val Asp Arg Cys Leu Gly Gln Pro Pro			
1765	1770	1775	
Pro Cys His Ser Asp Ala Met Cys Thr Asp Leu His Phe Gln Glu Lys			
1780	1785	1790	
Arg Ala Gly Val Phe His Leu Gln Ala Thr Ser Gly Pro Tyr Gly Leu			
1795	1800	1805	
Asn Phe Ser Glu Ala Glu Ala Ala Cys Glu Ala Gln Gly Ala Val Leu			
1810	1815	1820	
Ala Ser Phe Pro Gln Leu Ser Ala Ala Gln Gln Leu Gly Phe His Leu			
1825	1830	1835	1840
Cys Leu Met Gly Trp Leu Ala Asn Gly Ser Thr Ala His Pro Val Val			
1845	1850	1855	

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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Phe Pro Val Ala	Asp Cys Gly Asn Gly	Arg Val Gly Ile Val	Ser Leu
1860	1865	1870	
Gly Ala Arg Lys Asn Leu Ser Glu Arg Trp Asp Ala Tyr Cys Phe Arg			
1875	1880	1885	
Val Gln Asp Val Ala Cys Arg Cys Arg Asn Gly Phe Val Gly Asp Gly			
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Ile Ser Thr Cys Asn Gly Lys Leu Leu Asp Val Leu Ala Ala Thr Ala			
1905	1910	1915	1920
Asn Phe Ser Thr Phe Tyr Gly Met Leu Leu Gly Tyr Ala Asn Ala Thr			
1925	1930	1935	
Gln Arg Gly Leu Asp Phe Leu Asp Phe Leu Asp Asp Glu Leu Thr Tyr			
1940	1945	1950	
Lys Thr Leu Phe Val Pro Val Asn Glu Gly Phe Val Asp Asn Met Thr			
1955	1960	1965	
Leu Ser Gly Pro Asn Leu Glu Leu His Ala Ser Asn Ala Thr Leu Leu			
1970	1975	1980	
Ser Ala Asn Ala Ser Gln Gly Lys Leu Leu Pro Ala His Ser Gly Leu			
1985	1990	1995	2000
Ser Leu Ile Ile Ser Asp Ala Gly Pro Asp Asn Ser Ser Trp Ala Pro			
2005	2010	2015	
Val Ala Pro Gly Thr Val Val Val Ser Arg Ile Ile Val Trp Asp Ile			
2020	2025	2030	
Met Ala Phe Asn Gly Ile Ile His Ala Leu Ala Ser Pro Leu Leu Ala			
2035	2040	2045	
Pro Pro Gln Pro Gln Ala Val Leu Ala Xaa Glu Ala Pro Pro Val Ala			
2050	2055	2060	
Ala Gly Val Gly Ala Val Leu Ala Ala Gly Ala Leu Leu Gly Leu Val			
2065	2070	2075	2080

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Ala Gly Ala Leu Tyr Leu Arg Ala Arg Gly Lys Pro Met Gly Phe Gly  
2085 2090 2095

Phe Ser Ala Phe Gln Ala Glu Asp Asp Ala Asp Asp Xaa Phe Ser Pro  
2100 2105 2110

Trp Gln Glu Gly Thr Asn Pro Xaa Leu Xaa Xaa Val Pro Asn Pro Val  
2115 2120 2125

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35 40 45

Lys Gly His Val Cys Ala Ala Gly Trp Met Ala Lys Gly Arg Val Gly  
50 55 60

Tyr Val Lys Gly Asn Cys Gly Gly Lys Thr Gly Asp Tyr Gly Arg Asn  
65 70 75 80

Arg Ser Arg Trp Asp Ala Tyr Cys Tyr Asn His Ala Lys Cys Gly Gly  
85 90 95

Val Thr Asp Lys Arg Lys Ser Gly Asn Tyr Asp Asn Cys Tyr Trp His  
100 105 110

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Arg Lys Tyr Gly Arg His Ser Asp Asp Asp Asp Gly Cys Ala Asp Tyr	115	120	125
Val Tyr Asp Ser Tyr Asp Asp Val His Gly Val Gly Arg Tyr Cys Gly	130	135	140
Asp Asp Asp Ser Thr Gly Asn Val Met Thr Lys Ser Asp Ala Ser Val	145	150	155
Thr Ala Gly Gly Lys Tyr Val Ala Met Asp Val Ser Lys Ser Ser Gly	165	170	175
Lys Asn Thr Ser Thr Thr Ser Thr Gly Asn Lys Asn Ala Gly Arg Ser	180	185	190

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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<p>gac tac gag ggt gat ggc tgg agc tgc cgg gcc cgc aac ccc tgc aca Asp Tyr Glu Gly Asp Gly Trp Ser Cys Arg Ala Arg Asn Pro Cys Thr 10 15 20</p>	102
<p>gat ggc cac cgc ggg ggc tgc agc gag cac gcc aac tgc ttg agc acc Asp Gly His Arg Gly Gly Cys Ser Glu His Ala Asn Cys Leu Ser Thr 25 30 35 40</p>	150
<p>ggc ctg aac aca cgg cgc tgt gag tgc cac gca ggc tac gta ggc gat Gly Leu Asn Thr Arg Arg Cys Glu Cys His Ala Gly Tyr Val Gly Asp 45 50 55</p>	198
<p>gga ctg cag tgt ctg gag gag tcg gaa cca cct gtg gac cgc tgc ttg Gly Leu Gln Cys Leu Glu Glu Ser Glu Pro Pro Val Asp Arg Cys Leu 60 65 70</p>	246
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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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ata gtc agc ctg ggt gcc cgc aag aac ctc tca gaa cgc tgg gat gcc Ile Val Ser Leu Gly Ala Arg Lys Asn Leu Ser Glu Arg Trp Asp Ala 170 175 180	582
tac tgc ttc cgt gtg caa gat gtg gcc tgc cga tgc cga aat ggc ttc Tyr Cys Phe Arg Val Gln Asp Val Ala Cys Arg Cys Arg Asn Gly Phe 185 190 195 200	630
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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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Glu	Pro	Pro	Val	Asp	Arg	Cys	Leu	Gly	Gln	Pro	Pro	Pro	Cys	His	Ser
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Phe	His	Leu	Gln	Ala	Thr	Ser	Gly	Pro	Tyr	Gly	Leu	Asn	Phe	Ser	Glu
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Ala	Glu	Ala	Ala	Cys	Glu	Ala	Gln	Gly	Ala	Val	Leu	Ala	Ser	Phe	Pro
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Gln	Leu	Ser	Ala	Ala	Gln	Gln	Leu	Gly	Phe	His	Leu	Cys	Leu	Met	Gly
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PATENT NO. 6,872,546 *Bl*

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Ser Gln Gly Lys Leu Leu Pro Ala His Ser Gly Leu Ser Leu Ile Ile  
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Ser Asp Ala Gly Pro Asp Asn Ser Ser Trp Ala Pro Val Ala Pro Gly  
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Thr Val Val Val Ser Arg Ile Ile Val Trp Asp Ile Met Ala Phe Asn  
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Gln Ala Val Leu Ala Xaa Glu Ala Pro Pro Val Ala Ala Gly Val Gly  
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Ala Val Leu Ala Ala Gly Ala Leu Leu Gly Leu Val Ala Gly Ala Leu  
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Tyr Leu Arg Ala Arg Gly Lys Pro Met Gly Phe Gly Phe Ser Ala Phe  
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Gln Ala Glu Asp Asp Ala Asp Asp Xaa Phe Ser Pro Trp Gln Glu Gly  
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Ala Ala Gly Val Tyr His Arg Ala Arg Ser Gly Lys Tyr Lys Thr Tyr	20	25	30
Ala Ala Lys Ala Val Cys Gly Gly His Ala Thr Tyr Lys Ala Ala Arg	35	40	45
Lys Gly His Val Cys Ala Ala Gly Trp Met Ala Lys Gly Arg Val Gly	50	55	60
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Arg Lys Tyr Gly Arg His Ser Asp Asp Asp Asp Gly Cys Ala Asp Tyr	115	120	125
Val Tyr Asp Ser Tyr Asp Asp Val His Gly Val Gly Arg Tyr Cys Gly	130	135	140
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**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**

PATENT NO. 6,872,546 *Bi*

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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atg ggc ctg ttg ctc ctg gtc cca ttg ctc ctg ctg ccc ggc tcc tac 165
Met Gly Leu Leu Leu Leu Val Pro Leu Leu Leu Leu Pro Gly Ser Tyr
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gga ctg ccc ttc tac tac ggc ttc tac tac tcc aac agc gcc aac gac 213
Gly Leu Pro Phe Tyr Tyr Gly Phe Tyr Tyr Ser Asn Ser Ala Asn Asp
             20             25             30

cag aac cta ggc aac ggt cat ggc aaa gac cta cnt aat gga gtg aag 261
Gln Asn Leu Gly Asn Gly His Gly Lys Asp Leu Xaa Asn Gly Val Lys
             35             40             45

ctg gtg gtg gag aca ccc gag gag acc ctg ttc acc tac caa ggg gcc 309
Leu Val Val Glu Thr Pro Glu Glu Thr Leu Phe Thr Tyr Gln Gly Ala
             50             55             60

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             65             70             75             80

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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ccg cgg cgt gtg cgt gtc aaa tgg tgg aag ctg tgc gag aac ggg gcc Pro Arg Arg Val Arg Val Lys Trp Trp Lys Leu Ser Glu Asn Gly Ala <div style="text-align: center;">85 90 95</div>	405
cca gag aag gac gtg ctg gtg gcc atc ggg ctg agg cac cgc tcc ttt Pro Glu Lys Asp Val Leu Val Ala Ile Gly Leu Arg His Arg Ser Phe <div style="text-align: center;">100 105 110</div>	453
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gcg gtg gtg gcc tcc ttt gag cag ctc ttc cgg gcc tgg gag gag ggc Ala Val Val Ala Ser Phe Glu Gln Leu Phe Arg Ala Trp Glu Glu Gly <div style="text-align: center;">195 200 205</div>	741
ctg gac tgg tgc aac gcg ggc tgg ctg cag gat gcc acg gtg cag tac Leu Asp Trp Cys Asn Ala Gly Trp Leu Gln Asp Ala Thr Val Gln Tyr <div style="text-align: center;">210 215 220</div>	789
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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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ggc gtg cga agc tac ggc ccc cgc cac cgc cgc ctg cac cgc tat gat	885
Gly Val Arg Ser Tyr Gly Pro Arg His Arg Arg Leu His Arg Tyr Asp	
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gta ttc tgc ttc gct act gcc ctc arg ggg cgg gtg tac tac ctg gan	933
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260 265 270	

cac cct gag aan ctg acn ctg aca naa gca agg gaa gcc tgc caa gaa	981
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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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Gln Asn Leu Gly Asn Gly His Gly Lys Asp Leu Xaa Asn Gly Val Lys
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Ser Val Ile Leu Pro Cys Arg Tyr Arg Tyr Glu Pro Ala Leu Val Ser
      65             70             75             80

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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Pro	Arg	Arg	Val	Arg	Val	Lys	Trp	Trp	Lys	Leu	Ser	Glu	Asn	Gly	Ala	
				85					90					95		
Pro	Glu	Lys	Asp	Val	Leu	Val	Ala	Ile	Gly	Leu	Arg	His	Arg	Ser	Phe	
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Gly	Asp	Tyr	Gln	Gly	Arg	Val	His	Leu	Arg	Gln	Asp	Lys	Glu	His	Asp	
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Tyr	Gln	Phe	Asn	Phe	His	Glu	Gly	Gln	Gln	Val	Cys	Ala	Glu	Gln	Ala	
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Lys																

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. 6,872,546 <sup>81</sup>

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Gln	Glu	Glu	Asn	Gly	Pro	Arg	Leu	Leu	Val	Val	Ala	Glu	Gln	Ala	Lys
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Ile	Phe	Ser	Gln	Arg	Gly	Gly	Asn	Val	Thr	Leu	Pro	Cys	Lys	Phe	Tyr
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His	Glu	His	Thr	Ser	Thr	Ala	Gly	Ser	Gly	Thr	His	Lys	Ile	Arg	Val
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Lys	Trp	Thr	Lys	Leu	Thr	Ser	Asp	Tyr	Leu	Lys	Glu	Val	Asp	Val	Phe
				85					90					95	
Val	Ala	Met	Gly	His	His	Arg	Lys	Ser	Tyr	Gly	Lys	Tyr	Gln	Gly	Arg
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Gly	Leu	Glu	Asp	Asp	Thr	Ala	Val	Val	Ala	Leu	Asn	Leu	Glu	Gly	Val
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Val	Phe	Pro	Tyr	Ser	Pro	Arg	Leu	Gly	Arg	Tyr	Asn	Leu	Asn	Phe	His
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Glu	Ala	Gln	Gln	Ala	Cys	Leu	Asp	Gln	Asp	Ser	Ile	Ile	Ala	Ser	Phe
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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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Asp Gln Leu Tyr Glu Ala Trp Arg Ser Gly Leu Asp Trp Cys Asn Ala	195	200	205
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Ala Tyr Asn	355		


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CERTIFICATE OF CORRECTION**

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Page 45 of 60

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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Pro Ile Asp Arg Cys Leu Gln Asp Asn Gly Gln Cys His Ala Asp Ala
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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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aac agt ggg ctg ggg gag aat gag acc ttg tct ggg cgg gac atc gag Asn Ser Gly Leu Gly Glu Asn Glu Thr Leu Ser Gly Arg Asp Ile Glu 220 225 230 235	903
cac cac ctc gcc aat gtc agc atg ttt ttc tac aat gac ctt gtc aat His His Leu Ala Asn Val Ser Met Phe Phe Tyr Asn Asp Leu Val Asn 240 245 250	951
ggc acc acc ctg caa acg agg ctg gga agc aag ctg ctc atc act gac Gly Thr Thr Leu Gln Thr Arg Leu Gly Ser Lys Leu Leu Ile Thr Asp 255 260 265	999
aga cag gac cca ctc cac ccg acg gag acc agg tgt gtt gat gga aga Arg Gln Asp Pro Leu His Pro Thr Glu Thr Arg Cys Val Asp Gly Arg 270 275 280	1047
gac act ctg gag tgg gac atc tgt gcc tcc aat ggg atc aca cat gtc Asp Thr Leu Glu Trp Asp Ile Cys Ala Ser Asn Gly Ile Thr His Val 285 290 295	1095
att tcc agg yct tta aaa gca ccc cct gcc ccc gtg acc ttg ncc cac Ile Ser Arg Xaa Leu Lys Ala Pro Pro Ala Pro Val Thr Leu Xaa His 300 305 310 315	1143
act ggn ttg gga gna ggg atc ttc tnt gnc atc atc ctg gtg act ggg Thr Gly Leu Gly Xaa Gly Ile Phe Xaa Xaa Ile Ile Leu Val Thr Gly 320 325 330	1191
gct gtt gcc ttg gct gct tac tcc tac ttt cgg ata aac cgg aaa aca Ala Val Ala Leu Ala Ala Tyr Ser Tyr Phe Arg Ile Asn Arg Lys Thr 335 340 345	1239
atc ggc ttc can cat ttt ga Ile Gly Phe Xaa His Phe 350	1259

<210> 11  
<211> 353  
<212> PRT  
<213> Homo sapiens

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<220>  
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<222> (94)  
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<400> 11

Met	Thr	Gly	Pro	Gly	Lys	His	Lys	Cys	Glu	Cys	Lys	Ser	His	Tyr	Val	
1				5					10					15		
Gly	Asp	Gly	Leu	Asn	Cys	Glu	Pro	Glu	Gln	Leu	Pro	Ile	Asp	Arg	Cys	
			20					25					30			
Leu	Gln	Asp	Asn	Gly	Gln	Cys	His	Ala	Asp	Ala	Lys	Cys	Val	Asp	Leu	
		35					40					45				
His	Phe	Gln	Asp	Thr	Thr	Val	Gly	Val	Phe	His	Leu	Arg	Ser	Pro	Leu	
	50					55					60					
Gly	Gln	Tyr	Lys	Leu	Thr	Phe	Asp	Lys	Ala	Arg	Glu	Ala	Cys	Ala	Asn	
65					70					75					80	
Glu	Ala	Ala	Thr	Met	Ala	Thr	Tyr	Asn	Gln	Leu	Ser	Tyr	Xaa	Gln	Lys	
				85					90					95		
Ala	Lys	Tyr	His	Leu	Cys	Ser	Ala	Gly	Trp	Leu	Glu	Thr	Gly	Arg	Val	
			100					105					110			
Ala	Tyr	Pro	Thr	Ala	Phe	Ala	Ser	Gln	Asn	Cys	Gly	Ser	Gly	Val	Val	
		115					120					125				
Gly	Ile	Val	Asp	Tyr	Gly	Pro	Arg	Pro	Asn	Lys	Ser	Glu	Met	Trp	Asp	
130						135					140					
Val	Phe	Cys	Tyr	Arg	Met	Lys	Asp	Val	Asn	Cys	Thr	Xaa	Lys	Val	Gly	
145					150					155					160	
Tyr	Val	Gly	Asp	Gly	Phe	Ser	Tyr	Ser	Gly	Asn	Leu	Leu	Gln	Val	Leu	
				165					170					175		
Met	Ser	Phe	Pro	Ser	Leu	Thr	Asn	Phe	Leu	Thr	Glu	Val	Leu	Ala	Tyr	
			180					185					190			
Ser	Asn	Ser	Ser	Ala	Arg	Gly	Arg	Ala	Phe	Leu	Glu	His	Leu	Thr	Asp	
		195				200						205				
Leu	Ser	Ile	Arg	Gly	Thr	Leu	Phe	Val	Pro	Gln	Asn	Ser	Gly	Leu	Gly	
210						215					220					

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Glu Asn Glu Thr Leu Ser Gly Arg Asp Ile Glu His His Leu Ala Asn  
225 230 235 240

Val Ser Met Phe Phe Tyr Asn Asp Leu Val Asn Gly Thr Thr Leu Gln  
245 250 255

Thr Arg Leu Gly Ser Lys Leu Leu Ile Thr Asp Arg Gln Asp Pro Leu  
260 265 270

His Pro Thr Glu Thr Arg Cys Val Asp Gly Arg Asp Thr Leu Glu Trp  
275 280 285

Asp Ile Cys Ala Ser Asn Gly Ile Thr His Val Ile Ser Arg Xaa Leu  
290 295 300

Lys Ala Pro Pro Ala Pro Val Thr Leu Xaa His Thr Gly Leu Gly Xaa  
305 310 315 320

Gly Ile Phe Xaa Xaa Ile Ile Leu Val Thr Gly Ala Val Ala Leu Ala  
325 330 335

Ala Tyr Ser Tyr Phe Arg Ile Asn Arg Lys Thr Ile Gly Phe Xaa His  
340 345 350

Phe

<210> 12

<211> 275

<212> PRT

<213> Mus musculus

<400> 12

Met Val Val Leu Leu Cys Leu Cys Val Leu Leu Trp Glu Glu Ala His  
1 5 10 15

Gly Trp Gly Phe Lys Asn Gly Ile Phe His Asn Ser Ile Trp Leu Glu  
20 25 30

Gln Ala Ala Gly Val Tyr His Arg Glu Ala Arg Ala Gly Arg Tyr Lys  
35 40 45

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Leu	Thr	Tyr	Ala	Glu	Ala	Lys	Ala	Val	Cys	Glu	Phe	Glu	Gly	Gly	Arg
	50					55					60				
Leu	Ala	Thr	Tyr	Lys	Gln	Leu	Glu	Ala	Ala	Arg	Lys	Ile	Gly	Phe	His
65					70					75					80
Val	Cys	Ala	Ala	Gly	Trp	Met	Ala	Lys	Gly	Arg	Val	Gly	Tyr	Pro	Ile
				85					90					95	
Val	Lys	Pro	Gly	Pro	Asn	Cys	Gly	Phe	Gly	Lys	Thr	Gly	Ile	Ile	Asp
			100					105					110		
Tyr	Gly	Ile	Arg	Leu	Asn	Arg	Ser	Glu	Arg	Trp	Asp	Ala	Tyr	Cys	Tyr
	115						120					125			
Asn	Pro	His	Ala	Lys	Glu	Cys	Gly	Gly	Val	Phe	Thr	Asp	Pro	Lys	Arg
130						135					140				
Ile	Phe	Lys	Ser	Pro	Gly	Phe	Pro	Asn	Glu	Tyr	Asp	Asp	Asn	Gln	Val
145					150					155				160	
Cys	Tyr	Trp	His	Ile	Arg	Leu	Lys	Tyr	Gly	Gln	Arg	Ile	His	Leu	Ser
			165						170					175	
Phe	Leu	Asp	Phe	Asp	Leu	Glu	His	Asp	Pro	Gly	Cys	Leu	Ala	Asp	Tyr
			180					185					190		
Val	Glu	Ile	Tyr	Asp	Ser	Tyr	Asp	Asp	Val	His	Gly	Phe	Val	Gly	Arg
	195						200					205			
Tyr	Cys	Gly	Asp	Glu	Leu	Pro	Glu	Asp	Ile	Ile	Ser	Thr	Gly	Asn	Val
210						215					220				
Met	Thr	Leu	Lys	Phe	Leu	Ser	Asp	Ala	Ser	Val	Thr	Ala	Gly	Gly	Phe
225					230					235					240
Gln	Ile	Lys	Tyr	Val	Thr	Val	Asp	Pro	Ala	Ser	Lys	Ser	Ser	Gln	Ala
				245					250					255	
Lys	Asn	Thr	Ser	Thr	Thr	Gly	Asn	Lys	Lys	Phe	Leu	Pro	Gly	Arg	Phe
			260					265					270		

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Ser His Leu  
275

<210> 13  
<211> 44  
<212> DNA  
<213> artificial sequence

<220>  
<223> contains an EcoRI restriction site

<400> 13  
gcagcaggat ccatgatgga ccagggctgc cgggaaatcc ttac

44

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<400> 14  
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44

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gcagcaggat ccatgggtcac ttgtacctgc ctgcccgact acgag

45

<210> 16  
<211> 45  
<212> DNA  
<213> artificial sequence

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<220>  
<223> contains a XhoI restriction site

<400> 16  
gcagcaggat ccatgggtcac ttgtacctgc ctgcccgact acgag 45

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<210> 19  
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<212> DNA  
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<400> 19  
gcagcaggat ccatgacagg cccgggcaag cacaagtgtg agtg

44

<210> 20  
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<212> DNA  
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50

<210> 22  
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<400> 22  
gcagcatcta gatcacttga ctgtgaggat cctctgggtg tcagg

45

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<210> 23  
<211> 51  
<212> DNA  
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<220>  
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<400> 23  
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<400> 24  
gcagcatcta gatcacttga ctgtgaggat cctctgggtg tcagg 45

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<220>  
<223> contains an XbaI restriction site

<400> 26  
gcagcatcta gaatttttct tggcaggctt cccttgcttn tgtcag 46

<210> 27  
<211> 50  
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<210> 29  
<211> 50  
<212> DNA  
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<220>  
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<400> 29  
gcagcaagat ctgccatcat gatggaccag ggctgccggg aaatccttac 50

<210> 30  
<211> 44  
<212> DNA  
<213> artificial sequence

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<210> 31  
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<210> 33  
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<220>  
<223> contains a BamHI restriction site

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<210> 34  
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<220>  
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<223> n equals a, t, g or c

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<220>  
<223> contains an XbaI restriction site

<400> 36  
gcagcatcta gatcaaaatg ntggaagccg attgttttcc ggtttatcc 49

<210> 37  
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<212> DNA  
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tctcccgga tcttgaggtc acatgcgtgg tggaggacgt aagccacgaa gaccctgagg 180  
tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg 240  
aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact 300  
ggctgaatgg caaggagtac aagtgcgaagg tctccaacaa agccctccca acccccatcg 360  
agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc 420  
catcccgga tgagctgacc aagaaccagg tcagcctgac ctgcctgggc aaaggcttct 480  
atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagAAC aactacaaga 540  
ccacgcctcc cgtgctggac tccgacggct ccttcttctc ctacagcaag ctcaccgtgg 600  
acaagagcag gtggcagcag gggaacgtct tctcatgtct cgtgatgcat gaggtctctg 660  
acaaccacta cagcagaag agcctctccc tgtctccggg taaatgagtg cgacggccgc 720  
gactctagag gat 733

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